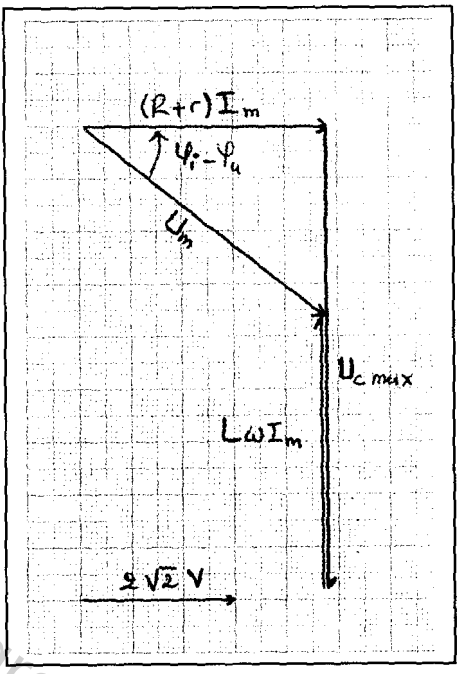
$$N_0 = \frac{1}{2\pi\sqrt{LC}} \Leftrightarrow N_0^2 = \frac{1}{4\pi^2 LC}$$

$$\Rightarrow L = \frac{1}{4\pi N_0^2 C} = 0,1H$$

2) a-



b- $(R+r)I_m = \frac{4,8\times 2\sqrt{2}}{3}$

$$\Rightarrow I_m = \frac{4,8\times 2\sqrt{2}}{3(25+15)} = 1,13.10^{-1}A = 8\sqrt{2}.10^{-2}A$$

$$\cos(\varphi_i - \varphi_u) = \frac{4,8}{6} = 0,8$$

$$\varphi_i - \varphi_u = 0,64rad$$

$$\frac{I_m}{C\omega} = \frac{8,8\times 2\sqrt{2}}{3}$$

$$\omega = \frac{3I_m}{C\times 8,8\times 2\sqrt{2}} = 2\pi N_1$$

Qarray.tn -Aqra Blech- Qarray.tn